

Claims

Claims 1-14 inclusive: *Canceled*

15. *(Currently amended)* A method for separating a perfluorinated polyether (PFPE) having di-hydroxyl end groups from a mixture of a first PFPE having hydroxyl end groups and a second PFPE having di-hydroxyl end groups, each of the first and second PFPEs having a distribution of molecular weights in the mixture, the method into two molecular-weight distributions comprising:

providing an alcohol solvent and a fluorinated solvent;

mixing the PFPE mixture with the solvents in a liquid/liquid extractor to concentrate lower-molecular-weight second PFPE in the alcohol solvent and first PFPE and higher-molecular-weight second PFPE in the fluorinated solvent;

after mixing, separating the solvents; and

evaporating each the alcohol solvent to extract substantially isolate lower-molecular-weight second PFPE with lower-molecular-weights from the mixture alcohol and PFPE with higher molecular-weights from the fluorinated solvent.

16. *(Original)* The method of claim 15 wherein the alcohol is methanol.

17. *(Original)* The method of claim 15 wherein the alcohol is trifluoroethanol.

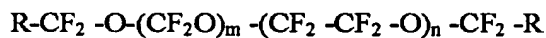
18. *(Original)* The method of claim 15 wherein the fluorinated solvent is selected from perfluorinated hydrocarbons, hydrochlorofluorocarbons, hydrofluoroethers, hydrofluorocarbons, hydrohalofluoroethers, perfluorinated amines and perfluorinated cyclic ethers.

19. *(Original)* The method of claim 18 wherein the fluorinated solvent is a perfluorinated hydrocarbon.

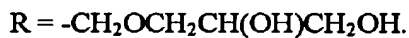
20. *(Original)* The method of claim 19 wherein the fluorinated solvent is perfluorohexane.

21. *(Original)* The method of claim 15 wherein the second solvent is a mixture of a perfluorinated hydrocarbon or a perfluorinated cyclic ether with a hydrochlorofluorocarbon, a hydrofluoroether, a hydrofluorocarbon, or a hydrohalofluoroether.

22. *(Currently amended)* The method of claim 15 wherein ~~the~~ said second PFPE has the general structural formula:

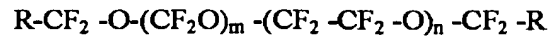


where m and n are integers and



23. *(Canceled)*

24. *(Currently amended)* The method of claim 15 wherein ~~the PFPE is a mixture~~
each of the first and second PFPEs ~~having~~ has the general structural formula:



where m and n are integers, and where R = -CH₂OH for the first PFPE, and

R = -CH₂OCH₂CH(OH)CH₂OH for the second PFPE.